

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method of manufacturing a multilayer circuit board, ~~in which a plurality of printed boards are stacked and pressed into a multilayer circuit board, each printed board having a conductor layer formed on one side of an insulating layer, the method comprising:~~

preparing a plurality of printed boards ~~with respective copper foils~~, each printed board being made through the steps of:

preparing a substrate comprising an insulating layer and a copper foil formed on the insulating layer, the insulating layer comprising a glass-cloth epoxy resin,

forming a via hole in ~~an insulating~~ the insulating layer of the substrate by laser processing from an insulating layer side surface of the substrate so that the via hole extends in a direction of thickness of the ~~insulating~~ substrate so as to reach the ~~conductive layer~~ copper foil, ~~the insulating substrate comprising a one-side copper-clad laminate having a core material,~~

forming a substantially flat plated conductor in the via hole so that the entire plated conductor is recessed from ~~[[a]]~~ the insulating layer side surface of the ~~insulating~~ substrate,

forming a conductive bump on the plated conductor so that the conductive bump is formed in the via hole and projects from the insulating layer side surface of the ~~insulating~~ substrate, and

forming a bonding layer substantially on the entire insulating layer side surface ~~at the insulating layer side~~ so as to cover the conductive bump;

etching the copper foil of at least one printed board of the plurality of printed boards so that a printed board with a conductor circuit is formed;

stacking the printed board with the conductor circuit and a second printed board of the plurality of printed boards, wherein the insulating layer side surface of the second printed board faces, ~~with the conductive bump inside~~, the etched copper foil side of the printed board with the conductor circuit;

stacking an outermost copper foil on the bonding layer ~~entire surface at the insulating layer side~~ of the printed board with the conductor circuit;

integrating the second printed board, the printed board with the conductor circuit, and the outermost copper foil by heating and one time of pressing such that the conductive bump in each printed circuit board pierces through ~~an adhesive~~ the corresponding bonding layer covering the conductive bump and is electrically connected to corresponding one of the conductor circuit ~~[[or]]~~ and the outermost copper foil; and

thereafter, etching the outermost copper foil and the copper foil ~~foils~~ on opposite ~~surfaces~~ surface of the integrated printed boards, thereby obtaining the multilayer circuit board.

2. (previously presented) The method according to claim 1, wherein a plurality of the printed boards with the respective conductor circuits are formed.

3-17. (canceled)

18. (currently amended) The method according to claim 1, ~~wherein the etching of the copper foils on opposite surfaces forms a conductor circuit with lands, and further~~ comprising:

forming a solder resist film having an opening ~~on and open to a predetermined land~~ among the lands exposing the etched outermost copper foil, and

connecting a pin through the opening.

19. (currently amended) The method according to claim 2, ~~wherein the etching of the copper foils on opposite surfaces forms a conductor circuit with lands, and~~ further comprising:

forming a solder resist film having an opening ~~on and open to a predetermined land among the lands~~ exposing the etched outermost copper foil, and connecting a pin through the opening.

20-21. (canceled)

22. (previously presented) The method according to claim 1, wherein the plated conductor is made from any of copper, tin, or silver.

23. (previously presented) The method according to claim 22, wherein the conductive bump comprises tin.

24. (new) The method according to claim 1, wherein the bonding layer comprises an epoxy resin adhesive.

25. (new) The method according to claim 1, wherein the pressing is performed under vacuum.

26. (new) A method of manufacturing a multilayer circuit board, comprising:

preparing a plurality of printed boards, each printed board being made through the steps of:

preparing a substrate comprising an insulating layer and a copper foil formed on the insulating layer, the insulating layer comprising a glass-cloth epoxy resin,

forming a via hole in the insulating layer of the substrate by laser processing from an insulating layer side surface of the substrate so that the via hole extends in a direction of thickness of the substrate so as to reach the copper foil,

forming a substantially flat plated conductor in the via hole so that the entire plated conductor is recessed from the insulating layer side surface of the substrate,

forming a conductive bump on the plated conductor so that the conductive bump is formed in the via hole and projects from the insulating layer side surface of the substrate, and

forming a bonding layer substantially on the entire insulating layer side surface so as to cover the conductive bump;

etching the copper foils of the plurality of printed boards except at least one first printed board to form conductive circuits;

stacking the plurality of printed boards so that the bonding layers of the plurality of printed boards except a second printed board stacked at a first outermost position face the copper foils of the plurality of printed boards, wherein the first printed board, the copper foil of which is not etched to form a conductive circuit, is stacked at a second outermost position opposite to the first outermost position with the copper foil thereof exposed;

stacking an outermost copper foil on the bonding layer of the second printed board stacked at the first outermost position;

integrating the stacked printed boards and the outermost copper foil by heating and pressing the copper foil of the first printed board and the outermost copper foil such that the

conductive bumps of the plurality of the printed boards pierce through the corresponding bonding layers covering the conductive bumps and are electrically connected to the copper foils facing the respective bonding layers, and the conductive bump of the second printed board pierces through the corresponding bonding layer covering the conductive bump and is electrically connected to the outermost copper foil; and

thereafter, etching the outermost copper foil and the copper foil of the first printed board, thereby obtaining the multilayer circuit board.

27. (new) The method according to claim 26, further comprising:

forming a resist film having an opening to the etched outermost copper foil; and  
connecting a pin to the etched outermost copper foil through the opening.

28. (new) The method according to claim 26, wherein the plated conductor comprises one selected from the group consisting of copper, tin, and silver.

29. (new) The method according to claim 28, wherein the conductive bump comprises tin.

30. (new) The method according to claim 26, wherein the bonding layer comprises an epoxy resin adhesive.

31. (new) The method according to claim 26, wherein the pressing is performed under vacuum.